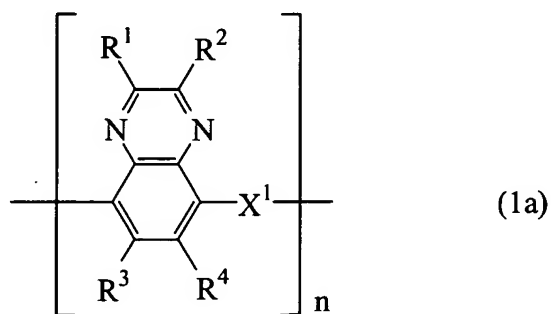


**AMENDMENTS TO THE CLAIMS**

1. (Original) An electrode for an energy storage device comprising a polyaminoquinoxaline compound of the following formula (1a) as an electrode active material,

[Chemical Formula 1]



wherein  $R^1$  and  $R^2$  independently represent a hydrogen atom, a hydroxyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^1$  and  $R^2$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$R^3$  and  $R^4$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a

furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when R<sup>3</sup> and R<sup>4</sup> are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

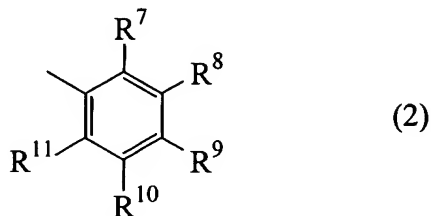
X<sup>1</sup> represents –NH-R<sup>5</sup>–NH– or –NH-R<sup>6</sup>– wherein R<sup>5</sup> and R<sup>6</sup> independently represent a C<sub>1</sub>–C<sub>10</sub> alkylene group, a –C(O)CH<sub>2</sub>–, –CH<sub>2</sub>C(O)–, a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y, in which Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>–C<sub>10</sub> alkyl group, a C<sub>1</sub>–C<sub>10</sub> haloalkyl group, a C<sub>1</sub>–C<sub>10</sub> alkoxy group, a C<sub>1</sub>–C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>–C<sub>10</sub> alkyl group, a C<sub>1</sub>–C<sub>10</sub> haloalkyl group, a C<sub>1</sub>–C<sub>10</sub> alkoxy group, a C<sub>1</sub>–C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a

pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different; and

n is an integer of 2 or over.

2. (Original) The electrode according to claim 1, wherein  $R^1$  and  $R^2$  independently represent a group of the following formula (2)

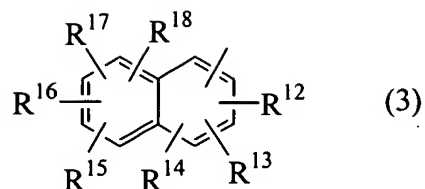
[Chemical Formula 2]



wherein  $R^7$ - $R^{11}$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_4$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_4$  cyanoalkyl group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

3. (Original) The electrode according to claim 1, wherein  $R^1$  and  $R^2$  independently represent a group of the following formula (3)

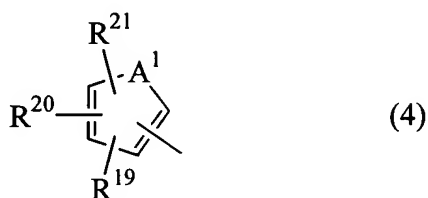
[Chemical Formula 3]



wherein  $R^{12}$ - $R^{18}$  independently represent, each substituted at an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

4. (Original) The electrode according to claim 1, wherein  $R^1$  and  $R^2$  independently represent a group of the following formula (4)

[Chemical Formula 4]

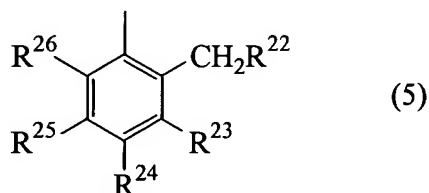


wherein  $R^{19}$ - $R^{21}$  independently represent, each substituted at an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group; and

$A^1$  represents NH, O or S.

5. (Original) The electrode according to claim 1, wherein  $R^1$  and  $R^2$  independently represent a group of the following formula (5)

[Chemical Formula 5]

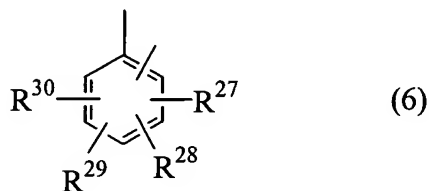


wherein  $R^{22}$  represents a halogen atom or a cyano group, and  $R^{23}$ - $R^{26}$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which

may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

6. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein R<sup>5</sup> represents a group of the following formula (6)

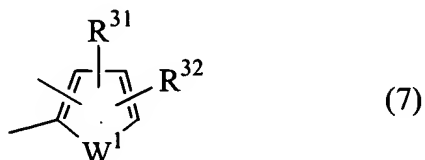
[Chemical Formula 6]



wherein R<sup>27</sup>-R<sup>30</sup> independently represent, each substituted at an arbitrary position on the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

7. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein R<sup>5</sup> represents a group of the following formula (7)

[Chemical Formula 7]

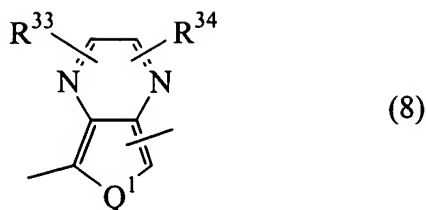


wherein R<sup>31</sup>-R<sup>32</sup> independently represent, each substituted at an arbitrary position on the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group; and

W<sup>1</sup> represents NH, O or S.

8. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein R<sup>5</sup> represents a group of the following formula (8)

[Chemical Formula 8]

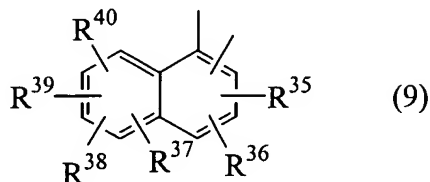


wherein  $R^{33}$ - $R^{34}$  independently represent, each substituted at an arbitrary position on the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group; and

$Q^1$  represents NH, O or S.

9. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein  $R^5$  represents a group of the following formula (9)

[Chemical Formula 9]

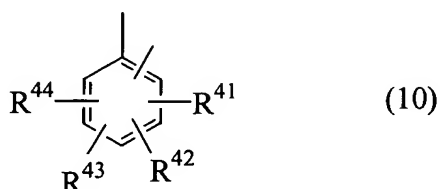




wherein  $R^{35}$ - $R^{40}$  independently represent, each substituted at an arbitrary position on the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

10. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein  $R^6$  represents a group of the following formula (10)

[Chemical Formula 10]

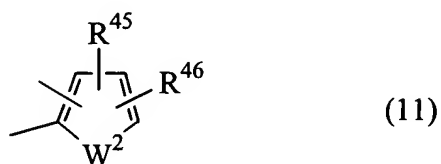


wherein  $R^{41}$ - $R^{44}$  independently represent, each substituted on an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl

group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

11. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein R<sup>6</sup> represents a group of the following formula (11)

[Chemical Formula 11]

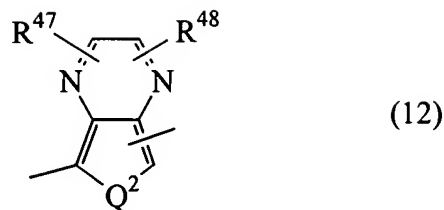


wherein R<sup>45</sup>-R<sup>46</sup> independently represent, each substituted on an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group; and

W<sup>2</sup> represents NH, O or S.

12. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein R<sup>6</sup> represents a group of the following formula (12)

[Chemical Formula 12]

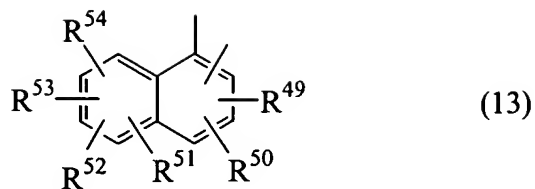


wherein  $R^{47}$ - $R^{48}$  independently represent, each substituted on an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group; and

$Q^2$  represents NH, O or S.

13. (Currently Amended) The electrode according to ~~any one of claims 1 to 5~~ claim 1, wherein  $R^6$  represents a group of the following formula (13)

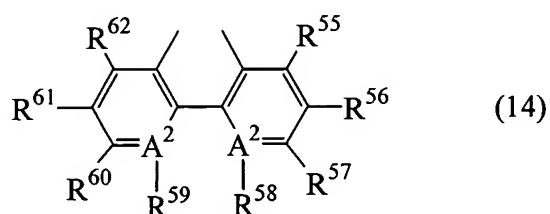
[Chemical Formula 13]



wherein  $R^{49}$ - $R^{54}$  independently represent, each substituted on an arbitrary position of the ring of the formula, a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

14. (Original) The electrode according to claim 1, wherein the group formed by bonding  $R^1$  and  $R^2$  through a single bond is represented by the formula (14)

[Chemical Formula 14]

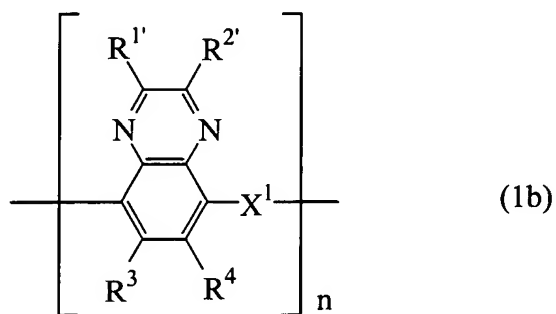


wherein  $A^2$ 's are each C or N,  $R^{55}$ - $R^{62}$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl

group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group, provided that when A<sup>2</sup> represents N, R<sup>58</sup> and R<sup>59</sup> are both non-existent.

15. (Original) An electrode for an energy storage device comprising a polyaminoquinoxaline compound of the following formula (1b) as an electrode active material

[Chemical Formula 15]



wherein R<sup>1'</sup> and R<sup>2'</sup> join together to form -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>-, -OCH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>SCH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>N(R')-, -N(R')CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>N(R')CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>O-, -SCH<sub>2</sub>CH<sub>2</sub>S-, -OCH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH=CH-,

-CH=CHCH<sub>2</sub>-, -OCH=CH-, -CH=CHO-, -SCH=CH-, -CH=CHS-,  
-N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
-N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
-CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,  
-CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

R<sup>3</sup> and R<sup>4</sup> independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when R<sup>3</sup> and R<sup>4</sup> are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond; and

$X^1$  represents  $-NH-R^5-NH-$  or  $-NH-R^6-$  wherein  $R^5$  and  $R^6$  independently represent a  $C_1$ - $C_{10}$  alkylene group, a  $-C(O)CH_2-$ ,  $-CH_2C(O)-$ , a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y;

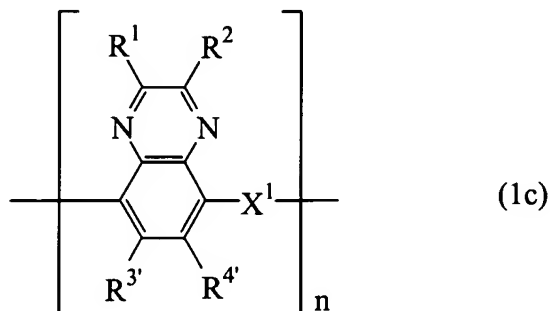
Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different;

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different; and

n is an integer of 2 or over.

16. (Original) An electrode for an energy storage device comprising a polyaminoquinoxaline compound of the following formula (1c) as an electrode active material

[Chemical Formula 16]



wherein  $R^1$  and  $R^2$  independently represent a hydrogen atom, a hydroxyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^1$  and  $R^2$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$R^{3'}$  and  $R^{4'}$  join together to form  $-CH_2CH_2CH_2-$ ,  $-CH_2CH_2O-$ ,  $-OCH_2CH_2-$ ,  $-CH_2OCH_2-$ ,  $-OCH_2O-$ ,  $-CH_2CH_2S-$ ,  $-SCH_2CH_2-$ ,  $-CH_2SCH_2-$ ,  $-CH_2CH_2N(R')$ ,  $-N(R')CH_2CH_2-$ ,  $-CH_2N(R')CH_2-$ ,  $-CH_2CH_2CH_2CH_2-$ ,  $-CH_2CH_2CH_2O-$ ,  $-OCH_2CH_2CH_2-$ ,  $-CH_2CH_2OCH_2-$ ,  $-CH_2OCH_2CH_2-$ ,  $-CH_2OCH_2O-$ ,  $-OCH_2CH_2O-$ ,  $-SCH_2CH_2S-$ ,  $-OCH_2CH_2S-$ ,  $-SCH_2CH_2O-$ ,  $-CH_2CH=CH-$ ,



-CH=CHCH<sub>2</sub>-, -OCH=CH-, -CH=CHO-, -SCH=CH-, -CH=CHS-,  
 -N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
 -N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
 -CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,  
 -CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

X<sup>1</sup> represents -NH-R<sup>5</sup>-NH- or -NH-R<sup>6</sup>- wherein R<sup>5</sup> and R<sup>6</sup> independently represent a C<sub>1</sub>-C<sub>10</sub> alkylene group, a -C(O)CH<sub>2</sub>-, -CH<sub>2</sub>C(O)-, a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y;

Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group

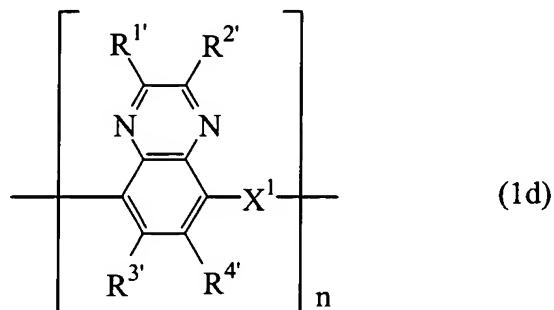
which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different;

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different; and

n is an integer of 2 or over.

17. (Original) An electrode for an energy storage device comprising a polyaminoquinoxaline compound of the following formula (1d) as an electrode active material

[Chemical Formula 17]



wherein R<sup>1'</sup> and R<sup>2'</sup> join together to form -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-,

$\text{-OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{-}$ ,  $\text{-OCH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{SCH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{N(R')-}$ ,  $\text{-N(R')CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{N(R')CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{CH}_2\text{O-}$ ,  $\text{-OCH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{OCH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{O-}$ ,  $\text{-SCH}_2\text{CH}_2\text{S-}$ ,  $\text{-OCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH=CH-}$ ,  
 $\text{-CH=CHCH}_2\text{-}$ ,  $\text{-OCH=CH-}$ ,  $\text{-CH=CHO-}$ ,  $\text{-SCH=CH-}$ ,  $\text{-CH=CHS-}$ ,  
 $\text{-N(R')CH=CH-}$ ,  $\text{-CH=CHN(R')-}$ ,  $\text{-OCH=N-}$ ,  $\text{-N=CHO-}$ ,  $\text{-SCH=N-}$ ,  
 $\text{-N=CHS-}$ ,  $\text{-N(R')CH=N-}$ ,  $\text{-N=CHN(R')-}$ ,  $\text{-N(R')N=CH-}$ ,  $\text{-CH=N(R')N-}$ ,  
 $\text{-CH=CHCH=CH-}$ ,  $\text{-OCH}_2\text{CH=CH-}$ ,  $\text{-CH=CHCH}_2\text{O-}$ ,  $\text{-N=CHCH=CH-}$ ,  
 $\text{-CH=CHCH=N-}$ ,  $\text{-N=CHCH=N-}$ ,  $\text{-N=CHN=CH-}$ , or  $\text{-CH=NCH=N-}$  wherein a hydrogen atom  
bonded to a carbon atom of these groups may be substituted with Y, and R' represents a  
hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a  
phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z,  
a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted  
with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be  
substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl  
group which may be substituted with Z;

R<sup>3'</sup> and R<sup>4'</sup> join together to form  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{-}$ ,  $\text{-OCH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{SCH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{N(R')-}$ ,  $\text{-N(R')CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{N(R')CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{CH}_2\text{O-}$ ,  $\text{-OCH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{OCH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{O-}$ ,  $\text{-SCH}_2\text{CH}_2\text{S-}$ ,  $\text{-OCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH=CH-}$ ,  
 $\text{-CH=CHCH}_2\text{-}$ ,  $\text{-OCH=CH-}$ ,  $\text{-CH=CHO-}$ ,  $\text{-SCH=CH-}$ ,  $\text{-CH=CHS-}$ ,

-N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
 -N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
 -CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,  
 -CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

X<sup>1</sup> represents -NH-R<sup>5</sup>-NH- or -NH-R<sup>6</sup>- wherein R<sup>5</sup> and R<sup>6</sup> independently represent a C<sub>1</sub>-C<sub>10</sub> alkylene group, a -C(O)CH<sub>2</sub>-, -CH<sub>2</sub>C(O)-, a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y;

Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl

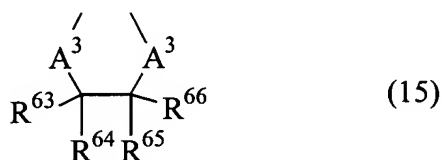
group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different;

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different; and

n is an integer of 2 or over.

18. (Currently Amended) The electrode according to claim 15-~~or~~ 17, wherein the group formed by joining R<sup>1'</sup> and R<sup>2'</sup> together is of the formula (15)

[Chemical Formula 18]

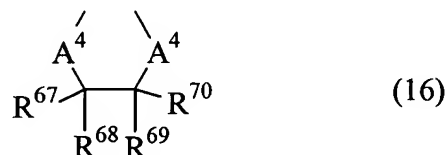


wherein A<sup>3</sup> represents O or S, and R<sup>63</sup>-R<sup>66</sup> independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy

group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

19. (Currently Amended) The electrode according to claim 16-~~or~~ 17, wherein the group formed by joining R<sup>3'</sup> and R<sup>4'</sup> together is of the formula (16)

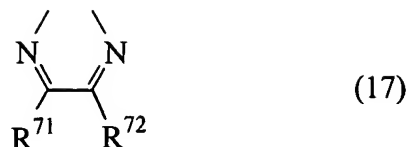
[Chemical Formula 19]



wherein A<sup>4</sup> represents O or S, and R<sup>67</sup>-R<sup>70</sup> independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

20. (Currently Amended) The electrode according to claim 16-~~or~~ 17, wherein the group formed by joining R<sup>3'</sup> and R<sup>4'</sup> is of the formula (17)

[Chemical Formula 20]



wherein  $R^{71}$  and  $R^{72}$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z or a thienyl group which may be substituted with Z, in which Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  haloalkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a  $C_1$ - $C_{10}$  cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group.

21. (Currently Amended) An energy storage device comprising an electrode for an energy storage device according to ~~any one of claims 1 to 20~~ claim 1.

22. (Original) A method for making an electrode for an energy storage device according to claim 1, which method comprising applying and building up, on a current collector electrode, an electrode active material made of a polyaminoquinoxaline compound represented by the afore-indicated formula (1a).

23. (Original) A method for making an electrode for an energy storage device according to claim 15, which method comprising applying and building up, on a current collector electrode, an

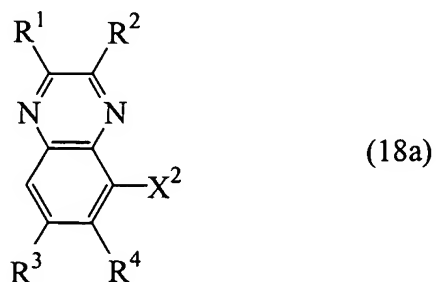
electrode active material made of a polyaminoquinoxaline compound represented by the afore-indicated formula (1b).

24. (Original) A method for making an electrode for an energy storage device according to claim 16, which method comprising applying and building up, on a current collector electrode, an electrode active material made of a polyaminoquinoxaline compound represented by the afore-indicated formula (1c).

25. (Original) A method for making an electrode for an energy storage device according to claim 17, which method comprising applying and building up, on a current collector electrode, an electrode active material made of a polyaminoquinoxaline compound represented by the afore-indicated formula (1d).

26. (Original) A method for making an electrode for an energy storage device as recited in claim 1 above, which method comprising electrolytically polymerizing an aminoquinoxaline compound represented by the formula (18a) on a current collector electrode,

[Chemical Formula 21]





wherein  $R^1$  and  $R^2$  independently represent a hydrogen atom, a hydroxyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^1$  and  $R^2$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$R^3$  and  $R^4$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^3$  and  $R^4$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$X^2$  represents  $-NH-R^{73}-NH_2$  or  $-NH-R^{74}$ , in which  $R^{73}$  represents a  $C_1$ - $C_{10}$  alkylene group, a  $-C(O)CH_2-$ ,  $-CH_2C(O)-$ , a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be

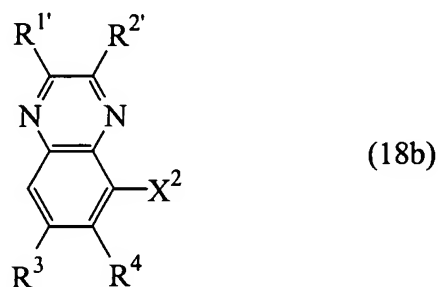
substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y, and R<sup>74</sup> a C<sub>1</sub>-C<sub>10</sub> alkyl group, an acetyl group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y, or a condensed heteroaryl group which may be substituted with Y;

Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different; and

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different.

27. (Original) A method for making an electrode for an energy storage device according to claim 15, which method comprising electrolytically polymerizing an aminoquinoxaline compound represented by the formula (18b) on a current collector electrode,

[Chemical Formula 22]



wherein R<sup>1'</sup> and R<sup>2'</sup> join together to form -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-,  
 -OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>-, -OCH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>SCH<sub>2</sub>-,  
 -CH<sub>2</sub>CH<sub>2</sub>N(R')-, -N(R')CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>N(R')CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-,  
 -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>O-,  
 -OCH<sub>2</sub>CH<sub>2</sub>O-, -SCH<sub>2</sub>CH<sub>2</sub>S-, -OCH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH=CH-,  
 -CH=CHCH<sub>2</sub>-, -OCH=CH-, -CH=CHO-, -SCH=CH-, -CH=CHS-,  
 -N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
 -N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
 -CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,  
 -CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z,

a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

$R^3$  and  $R^4$  independently represent a hydrogen atom, a halogen atom, a cyano group, a nitro group, an amino group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^3$  and  $R^4$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$X^2$  represents  $-NH-R^{73}-NH_2$  or  $-NH-R^{74}$ , in which  $R^{73}$  represents a  $C_1$ - $C_{10}$  alkylene group, a  $-C(O)CH_2-$ ,  $-CH_2C(O)-$ , a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y, and  $R^{74}$  a  $C_1$ - $C_{10}$  alkyl group, an acetyl group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a

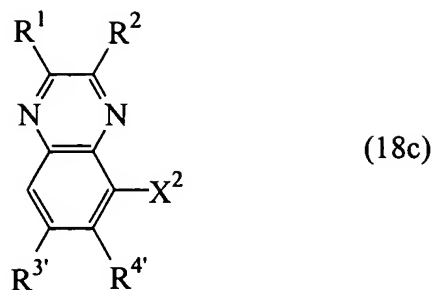
thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y, or a condensed heteroaryl group which may be substituted with Y;

Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different; and

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different.

28. (Original) A method for making an electrode for an energy storage device according to claim 16, which method comprising electrolytically polymerizing an aminoquinoxaline compound represented by the formula (18c) on a current collector electrode,

[Chemical Formula 23]



wherein  $R^1$  and  $R^2$  independently represent a hydrogen atom, a hydroxyl group, a  $C_1$ - $C_{10}$  alkyl group, a  $C_1$ - $C_{10}$  alkoxy group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y or a condensed heteroaryl group which may be substituted with Y provided that when  $R^1$  and  $R^2$  are, respectively, the above-defined phenyl, pyridyl, biphenyl, naphthyl, thienyl, pyrrolyl, furyl or condensed heteroaryl group, these groups may be joined through a single bond;

$R^{3'}$  and  $R^{4'}$  join together to form -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-,  
 -OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>-, -OCH<sub>2</sub>O-, -CH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>SCH<sub>2</sub>-,  
 -CH<sub>2</sub>CH<sub>2</sub>N(R')-, -N(R')CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>N(R')CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-,  
 -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>O-, -OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>O-,  
 -OCH<sub>2</sub>CH<sub>2</sub>O-, -SCH<sub>2</sub>CH<sub>2</sub>S-, -OCH<sub>2</sub>CH<sub>2</sub>S-, -SCH<sub>2</sub>CH<sub>2</sub>O-, -CH<sub>2</sub>CH=CH-,  
 -CH=CHCH<sub>2</sub>-, -OCH=CH-, -CH=CHO-, -SCH=CH-, -CH=CHS-,  
 -N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
 -N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
 -CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,

-CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

X<sup>2</sup> represents -NH-R<sup>73</sup>-NH<sub>2</sub> or -NH-R<sup>74</sup>, in which R<sup>73</sup> represents a C<sub>1</sub>-C<sub>10</sub> alkylene group, a -C(O)CH<sub>2</sub>-, -CH<sub>2</sub>C(O)-, a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y, and R<sup>74</sup> a C<sub>1</sub>-C<sub>10</sub> alkyl group, an acetyl group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with Y, a furyl group which may be substituted with Y, or a condensed heteroaryl group which may be substituted with Y;

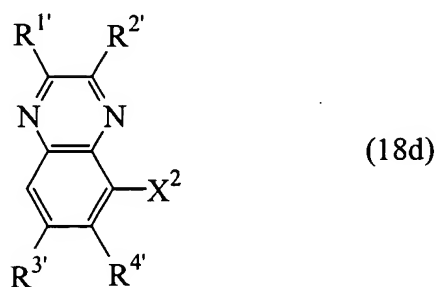
Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a

C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different; and

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different.

29. (Original) A method for making an electrode for an energy storage device according to claim 17, which method comprising electrolytically polymerizing an aminoquinoxaline compound represented by the formula (18d) on a current collector electrode,

[Chemical Formula 24]



wherein R<sup>1'</sup> and R<sup>2'</sup> join together to form -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>O-,



$\text{-OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{-}$ ,  $\text{-OCH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{SCH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{N(R')-}$ ,  $\text{-N(R')CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{N(R')CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{CH}_2\text{O-}$ ,  $\text{-OCH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{OCH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{O-}$ ,  $\text{-SCH}_2\text{CH}_2\text{S-}$ ,  $\text{-OCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH=CH-}$ ,  
 $\text{-CH=CHCH}_2\text{-}$ ,  $\text{-OCH=CH-}$ ,  $\text{-CH=CHO-}$ ,  $\text{-SCH=CH-}$ ,  $\text{-CH=CHS-}$ ,  
 $\text{-N(R')CH=CH-}$ ,  $\text{-CH=CHN(R')-}$ ,  $\text{-OCH=N-}$ ,  $\text{-N=CHO-}$ ,  $\text{-SCH=N-}$ ,  
 $\text{-N=CHS-}$ ,  $\text{-N(R')CH=N-}$ ,  $\text{-N=CHN(R')-}$ ,  $\text{-N(R')N=CH-}$ ,  $\text{-CH=N(R')N-}$ ,  
 $\text{-CH=CHCH=CH-}$ ,  $\text{-OCH}_2\text{CH=CH-}$ ,  $\text{-CH=CHCH}_2\text{O-}$ ,  $\text{-N=CHCH=CH-}$ ,  
 $\text{-CH=CHCH=N-}$ ,  $\text{-N=CHCH=N-}$ ,  $\text{-N=CHN=CH-}$ , or  $\text{-CH=NCH=N-}$  wherein a hydrogen atom  
bonded to a carbon atom of these groups may be substituted with Y, and R' represents a  
hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a  
phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z,  
a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted  
with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be  
substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl  
group which may be substituted with Z;

R<sup>3'</sup> and R<sup>4'</sup> join together to form  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{-}$ ,  $\text{-OCH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{SCH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{N(R')-}$ ,  $\text{-N(R')CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{N(R')CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  
 $\text{-CH}_2\text{CH}_2\text{CH}_2\text{O-}$ ,  $\text{-OCH}_2\text{CH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{CH}_2\text{OCH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{CH}_2\text{-}$ ,  $\text{-CH}_2\text{OCH}_2\text{O-}$ ,  
 $\text{-OCH}_2\text{CH}_2\text{O-}$ ,  $\text{-SCH}_2\text{CH}_2\text{S-}$ ,  $\text{-OCH}_2\text{CH}_2\text{S-}$ ,  $\text{-SCH}_2\text{CH}_2\text{O-}$ ,  $\text{-CH}_2\text{CH=CH-}$ ,  
 $\text{-CH=CHCH}_2\text{-}$ ,  $\text{-OCH=CH-}$ ,  $\text{-CH=CHO-}$ ,  $\text{-SCH=CH-}$ ,  $\text{-CH=CHS-}$ ,

-N(R')CH=CH-, -CH=CHN(R')-, -OCH=N-, -N=CHO-, -SCH=N-,  
 -N=CHS-, -N(R')CH=N-, -N=CHN(R')-, -N(R')N=CH-, -CH=N(R')N-,  
 -CH=CHCH=CH-, -OCH<sub>2</sub>CH=CH-, -CH=CHCH<sub>2</sub>O-, -N=CHCH=CH-,  
 -CH=CHCH=N-, -N=CHCH=N-, -N=CHN=CH-, or -CH=NCH=N- wherein a hydrogen atom bonded to a carbon atom of these groups may be substituted with Y, and R' represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z, or a condensed heteroaryl group which may be substituted with Z;

X<sup>2</sup> represents -NH-R<sup>73</sup>-NH<sub>2</sub> or -NH-R<sup>74</sup>, in which R<sup>73</sup> represents a C<sub>1</sub>-C<sub>10</sub> alkylene group, a -C(O)CH<sub>2</sub>-, -CH<sub>2</sub>C(O)-, a divalent benzene ring which may be substituted with Y, a divalent pyridine ring which may be substituted with Y, a divalent biphenyl group which may be substituted with Y, a divalent naphthalene ring which may be substituted with Y, a divalent thiophene ring which may be substituted with Y, a divalent pyrrole ring which may be substituted with Y, a furan ring which may be substituted with Y, or a condensed hetero ring which may be substituted with Y, and R<sup>74</sup> a C<sub>1</sub>-C<sub>10</sub> alkyl group, an acetyl group, a phenyl group which may be substituted with Y, a pyridyl group which may be substituted with Y, a biphenyl group which may be substituted with Y, a naphthyl group which may be substituted with Y, a thienyl group which may be substituted with Y, a pyrrolyl group which may be substituted with

Y, a furyl group which may be substituted with Y, or a condensed heteroaryl group which may be substituted with Y;

Y represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group which may be substituted with Z, a pyridyl group which may be substituted with Z, a biphenyl group which may be substituted with Z, a naphthyl group which may be substituted with Z, a thienyl group which may be substituted with Z, a pyrrolyl group which may be substituted with Z, a furyl group which may be substituted with Z or a condensed heteroaryl group which may be substituted with Z provided that if Y is two or more in number, Y may be the same or different; and

Z represents a halogen atom, a cyano group, a nitro group, an amino group, an epoxy group, a vinyl group, a C<sub>1</sub>-C<sub>10</sub> alkyl group, a C<sub>1</sub>-C<sub>10</sub> haloalkyl group, a C<sub>1</sub>-C<sub>10</sub> alkoxy group, a C<sub>1</sub>-C<sub>10</sub> cyanoalkyl group, a phenyl group, a biphenyl group, a naphthyl group, a thienyl group, a pyrrolyl group, a furyl group or a condensed heteroaryl group provided that if Z is two or more in number, Z may be the same or different.